

Application No. 09/286,791  
Response to Office Action

Customer No. 01933

**Listing of Claims:**

1. (Previously Presented) An image pickup device equipped with a light emitter which determines a light quantity of a second light emission by the light emitter based on an electric signal into which an image picked up with a first light emission  
5 by the light emitter is converted, comprising:

an image pickup unit which picks up an image and converts the picked-up image into an electric signal;

a memory adapted to store image data corresponding to the electric signal produced by the image pickup unit;

10 a determining section which makes a determination of whether the electric signal produced by the image pickup unit has a proper brightness, in a case where the image is picked up by the image pickup unit with the first light emission by the light emitter; and

15 a controller which controls the memory to store the image data corresponding to the electric signal used by the determining section for making the determination, and which inhibits the second light emission by the light emitter, only if a result of the determination of the determining section is "proper" with  
20 respect to the electric signal which is produced by the image pickup unit by converting the image picked up by the image pickup unit with the first light emission by the light emitter;

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25 wherein the light emitter is controlled by the controller to  
emit light in timing with an image pickup timing of the image  
pickup device.

5 2. (Previously Presented) An image pickup device according  
to claim 1, wherein when the result of the determination of the  
determining section is "not proper", the controller determines a  
light quantity for the second light emission which is assumed to  
be "proper" based on the electric signal produced by the image  
pickup unit, dispatches an image pickup instruction again to the  
image pickup unit, and at the same time, controls the light  
emitter to emit the second light emission, a quantity of which is  
equivalent to the light quantity determined by the controller, in  
10 timing with the image pickup timing.

5 3. (Previously Presented) An image pickup device according  
to claim 1, wherein the controller prohibits storing in the  
memory of the electric signal produced by the image pickup unit  
when the result of the determination of the determining section  
is "not proper".

4. (Previously Presented) An image pickup device according  
to claim 3, wherein when an electric signal produced by the image  
pickup unit in timing with the first light emission of the light

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emitter is "not proper", the controller controls the memory to  
5 store electric signals converted by the image pickup unit in  
timing with the second light emission and subsequent light  
emissions of the light emitter.

5. (Currently Amended) An image pickup device equipped with  
a stroboscopic light emitter, comprising:

an image pickup unit which picks up an image of an object  
and converts the image into an electric signal;

5 a memory adapted to store image data corresponding to the  
electric signal produced by the image pickup unit;

a determining section in a CPU which makes a determination  
of whether the electric signal produced by the image pickup unit  
is a proper image, in a case where the image is picked up by the  
10 image pickup unit with light emitted from the stroboscopic light  
emitter, and wherein the stroboscopic light emitter emits light  
of a desired intensity in synchronism with an operation of the  
image pickup unit; and

a controller in the CPU which controls the memory to store  
15 the image data corresponding to the electric signal used by the  
determining section for the determination if a result of the  
determination of the determining section is "proper" with respect  
to the electric signal which is produced by the image pickup unit  
by converting the image picked up thereby with the light emitted

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20 from the stroboscopic light emitter, and which computes an  
intensity of the light emitted from the stroboscopic light  
emitter if the result of the determination of the determining  
section is "not proper", ~~proper~~, wherein the intensity of light  
is based on the electric signal used by the determination section  
25 for the determination and is estimated to enable the result of  
the determination to become "proper", and wherein the controller  
again instructs the image pickup unit to pick up an image and  
also instructs the stroboscopic light emitter to emit light in  
synchronism with the image pickup operation of the image pickup  
30 unit.

Claim 6 (Canceled).

7. (Currently Amended) An image pickup device ~~according to~~  
~~claim 6~~, equipped with a light emitter, comprising:

an image pickup unit which picks up an image and converts  
the picked-up image into an electric signal;

5 a memory adapted to store image data corresponding to the  
electric signal produced by the image pickup unit;

a determining section which makes a determination of whether  
the electric signal produced by the image pickup unit has a  
proper brightness, in a case where the image is picked up by the  
10 image pickup unit with light emitted from the light emitter;

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a controller which controls the memory to store the image data corresponding to the electric signal used by the determining section for the determination with respect to the electric signal which is produced by the image pickup unit by converting the image picked up by the image pickup unit with the light emitted from the light emitter, only if a result of the determination of the determining section is "proper", wherein the light emitter is controlled by the controller to emit light in synchronism with an image pickup operation of the image pickup unit; and

an auto-focussing unit for driving an optical system to focus on an object;

wherein when the result of the determination of the determining section is "not proper", the controller obtains a light quantity of the light emitter which is assumed to be "proper" based on the electric signal produced by the image pickup unit, dispatches an image pickup instruction again to the image pickup unit, and at the same time, controls the light emitter to emit light in timing with the image pickup timing.

8. (Previously Presented) An image pickup device according to claim 7, wherein the controller obtains a light emission quantity of the light emitter by referring to information of a distance to the object obtained by an auto-focussing operation of the auto-focussing unit.

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9. (Previously Presented) An image pickup device according to claim 7, wherein the controller controls the light emitter to carry out a first light emission in a light emission quantity of the light emitter set by a user operation.

10. (Previously Presented) An image pickup method using a light emitter, comprising:

carrying out a first light emission of the light emitter, and carrying out a first image pickup operation in timing with the first light emission;

determining a brightness of a state of an image picked up by the first image pickup operation carried out in timing with the first light emission;

storing image data corresponding to an electric signal subjected to determination of the brightness of the state of the picked up image, if a result of the determination in the determining step is "at or above a predetermined value" with respect to the brightness of the state of the image picked up by the first image pickup operation;

determining a second light emission value of the light emitter if the result of the determination in the determining step is "less than a predetermined value" with respect to the

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brightness of the state of the image picked up by the first image pickup operation;

20 carrying out a second light emission of the light emitter based on the second light emission value, and carrying out a second image pickup in timing with the second light emission; and storing the second picked-up image.

11. (Previously Presented) An image pickup device according to claim 1, further comprising a shutter button which enables a user to instruct the image pickup device to perform an image pickup operation, and wherein the controller controls the image pickup unit to execute the image pickup operation in response to  
5 an operation of the shutter button by the user.

Claim 12 (Canceled).

13. (Previously Presented) An image pickup device equipped with a light emitter, comprising:

an image pickup unit which picks up an image and converts the picked-up image into an electric signal;

5 a memory adapted to store image data corresponding to the electric signal produced by the image pickup unit;

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a pre-emission instructing unit which instructs the light emitter to emit light in timing with a first image pickup timing of the image pickup unit;

10 a main emission instructing unit which instructs the light emitter to emit light in timing with a second image pickup timing of the image pickup unit;

a determining section which makes a determination of whether an electric signal which is produced by a first image pickup  
15 operation and conversion of the image pickup unit has a proper brightness, wherein the first image pickup operation of the image pickup unit is performed at a same time as the light emitter emits the light in timing with the first image pickup timing of the image pickup unit; and

20 means for controlling the memory to store image data corresponding to an electric signal subjected to determination by the determining section, if a result of the determination by the determining section is "proper", and for controlling the memory to store image data corresponding to an electric signal which is  
25 produced by a second image pickup operation and conversion of the image pickup unit, if the result of the determination by the determining section is "not proper";

wherein the light emitter is controlled by one of the pre-emission instructing unit and the main emission instructing unit



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30 to emit light in timing with one of the first and second image  
pickup timings of the image pickup unit.

14. (Previously Presented) An image pickup device according  
to claim 13, further comprising a proper light-quantity  
determining section for determining, when the result of the  
determination by the determining section is "not proper", a  
5 quantity of light from the light emitter which is estimated to  
enable the result of the determination to become "proper", based  
on the electric signal produced by the first image pickup  
operation and conversion of the image pickup device, wherein the  
first image pickup operation is performed at the same time as the  
10 light emitter emits the light in timing with the first image  
pickup timing of the image pickup unit.